

**Brazos Valley GCD**  
**Steel Tape Measuring Procedure**

1. The well should be as close to a stable water-level condition as possible when taking a static water-level measurement. The well where the static water level is to be measured should not be pumped for 24 hours prior to taking the static water-level measurements, if possible. If the well has been pumped less than 24 hours prior to taking the water-level measurement, record how long the pump has been off prior to taking the measurement. Also record if any wells within ½-mile that screen the same aquifer are pumping and could influence the water level in the well when taking the measurement. This is mainly a concern in well field areas.
2. Identify a port or opening in the pump discharge head or casing or in the pump foundation (surface casing vent pipe) that provides access for the steel tape to the annulus between the surface casing and the pump column assembly.
3. Measure and record the height of the opening above ground level and this will become the measuring point. If possible, this measuring point should be used each time the water level is measured for consistency of measurements. If not possible, record the height of the measuring point above land surface each time the static water level is measured.
4. Prior to taking the water-level measurement, review previous water-level measurements to get an idea of at what depth the water level may be encountered.
5. Use carpenter's chalk to coat the lowest 30 feet of the steel tape.
6. Lower the steel tape in the annulus between the pump column and casing or down a water-level measuring pipe until the depth of the tape is 10 feet lower than the last recorded static water level. Record the length of tape installed in the well with the footage marker exactly at the measuring point. Refer to this length as the "hold". Retract the steel tape and record the length of the tape to the nearest hundredth of a foot that is wet. This measurement is called the "cut". Record both measurements. Remove the wet chalk on the tape and rechalk the tape.
7. Wait 5 minutes and lower the tape one foot deeper than the hold depth on the previous measurement. Retract the tape and record the cut length. Subtract the cut length from the hold length to calculate the depth to water. The difference between the two measurements should be no greater than 0.02 feet. If the difference in depth to water is greater than 0.02 feet, repeat the procedure until two measurements are obtained that are within 0.02 of a foot of each other.
8. Compare the static water level measured during this visit to the well with the static water level measured during the last visit to the well to verify a reasonable measurement has been obtained.



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9. Record date and time of measurement, pumping conditions and measuring point height above ground level.
10. Remove the chalk from the steel tape and clean the lowest 30 feet with Clorox wipes before measuring the water level in another well.
11. Replace cap on port in discharge head or any other openings used to gain access to the well, if possible. If the well has a pump resting on top of the casing with space between the pump discharge head and casing, leave in same condition as found.

